

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[M.PHARM 0922]

SEPTEMBER 2022
(APRIL 2022 EXAM SESSION)

Sub. Code: 2941

M.PHARMACY DEGREE EXAMINATION
SEMESTER - I (PCI New regulations 2016)
PHARMACEUTICAL CHEMISTRY - MPC
PAPER I – MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Q.P. Code : 262941

Time : Three hours

Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Explain the general Mass fragmentation and its rule for important organic compounds.
b) Discuss in detail about GC-Derivatization.
2. a) Discuss ¹H NMR signals of the following.
i) Acetophenone ii) Propanoic acid iii) Butanal iv) Benzyl alcohol.
b) Explain the working principle and applications of the following:
i) Paper electrophoresis ii) Power compensation DSC.

II. Write notes on:

(7 x 5 = 35)

1. Discuss IR molecular vibrations and the factors affecting molecular vibrations in I.R.
2. Brief account on Quantum numbers and their role in NMR Spectrometry.
3. Discuss about Electronic transitions in UV-Visible Spectroscopy.
4. Write about different types of ion exchanger used in ion exchange chromatography.
5. Discuss on instrumentation of double beam spectro fluorimetry.
6. Write a note on TGA.
7. Write a note on rotating crystal technique.
